UNIVERSITY OF HAWAI'I SYSTEM ANNUAL REPORT

REPORT TO THE 2012 LEGISLATURE

ANNUAL REPORT FROM THE
HAWAII MEDICAL EDUCATION COUNCIL

HRS 304A-1704 (Act 181, SLH 2003)

November 2011

Hawaii Medical Education Council
Report to the 2012 Legislature

Executive Summary

In 2009 and 2010, the Hawaii Medical Education Council (HMEC) reported that Hawai'i has a severe shortage of practicing physicians. This shortage will worsen dramatically over the next 10 years. In 2011, HMEC turned its attention to the assessment of Graduate Medical Education (GME). Hawai'i ranks #1 in retention of physicians in Hawai'i practice if they attend both JABSOM and residency in Hawai'i. However, when compared to other states over the past 12 years, Hawai'i was dead last in GME growth with a loss of 5% of its positions while most states increased on average by 12.4 percent. When we compared Hawai'i workforce shortage statistics with the number of Hawai'i GME graduates in each specialty we found that of the top 20 most needed specialties, Hawai'i has programs in only 5. Only 2 of these graduate 6 or more residents per year. Of the top 20 most needed specialties, Hawai'i has no training opportunities in 15 areas.

Of greater concern is the fact that GME programs in Hawai'i are experiencing accreditation challenges due to funding and evolving higher regulatory standards. Several programs are at risk including family medicine, pediatrics, surgery, psychiatry and sports medicine. As a result, HMEC makes the following three recommendations.

1. In 2012, John A. Burns School of Medicine (JABSOM) should lead a strategic planning process, using the workforce data and involving key stakeholders, to determine the best investments in GME for the coming decade.
2. HMEC, working with JABSOM, will collect and report information regarding current GME funding in Hawai'i and use this information in the GME planning process.
3. JABSOM should define, implement, and report on the 5 specific performance measures recommended by the HMEC in this report.

Role of Hawaii Medical Education Council

In 2003, the Hawai'i State Legislature passed Act 181, establishing HMEC within the University of Hawai'i at Mānoa (UHM). In creating the HMEC, the legislature was specific in its expectations. HMEC was created to…

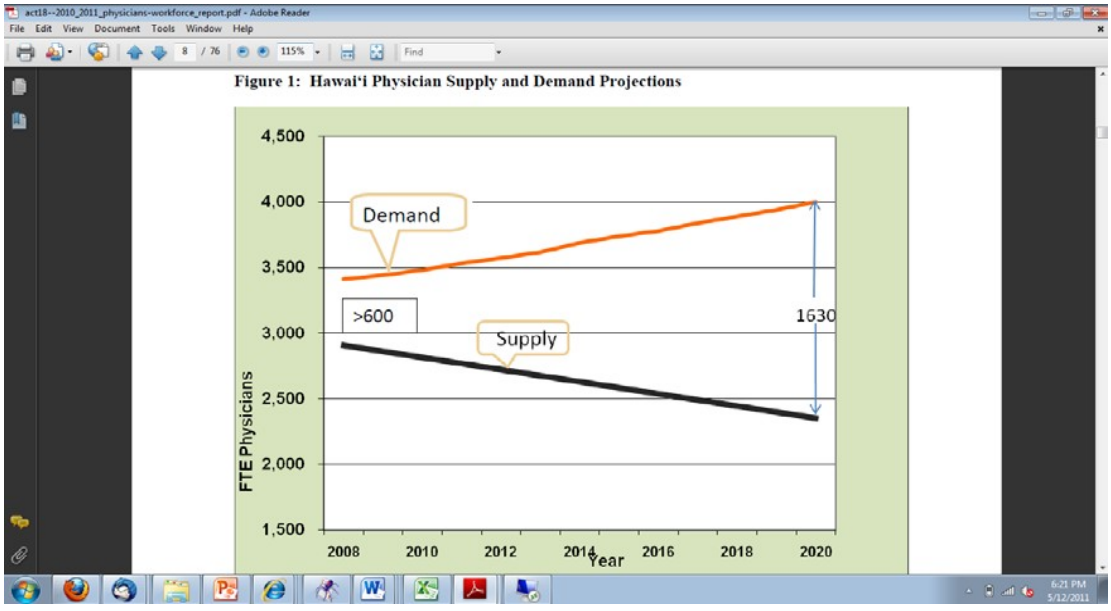
1. Conduct a comprehensive analysis of the health care workforce requirements of the state for the present and the future focusing particularly on the states need for physicians;
2. Conduct a comprehensive assessment of the State's health care training programs, particularly GME;
3. Make recommendations to the legislature and the board of regents for changes in or additions to the health care training programs in the state identified by the Council's Assessment.
4. Develop a plan to assure adequate funding of health care training programs in the state.
5. Implement the plan

6. Seek funding from public and private sources
7. Monitor the implementation and effectiveness of the plan, making modifications as needed after consulting with the board of regents and the legislature
8. Report back annually to the University of Hawai‘i Board of Regents and the Governor

Prior Work of HMEC

At the time of its creation, there was very little credible information regarding physician workforce nationally or in our state. Therefore, much of the work to date has centered on establishing funding for workforce assessment, developing models for assessing supply and demand and reporting out the results of the workforce analysis.

In its 2009 report to the legislature, HMEC warned of significant physician shortages across the state. The estimated current shortage in Hawai‘i is approximately 600 physicians and this will grow to an estimated 1600 physicians over the next 10 years. This mirrors the trends nationally so that recruitment from out of state will also be difficult. The conclusion was that we will need insure that Hawai‘i has the ability to “grow its own” physician workforce.



In its 2010 report, HMEC reported on efforts to share this workforce data across the state. Stakeholders representing schools, health systems and communities were brought together in a conference format to hear the latest on physician workforce trends and work in small groups to identify actions that could improve the situation. Several recommendations came forward including enhancing programs to encourage careers in medicine, increasing the class size of the medical school, using the workforce data to tailor and selectively grow our graduate medical education (GME) programs, and expand training opportunities to the neighbor islands. A number of these recommendations have been taken up by stakeholders and are

progressing. Efforts to identify promising high school students for admission into UHM /JABSOM and expansion of the medical school class are among them.

HMEC 2011

With this preparatory work in place, the HMEC met 3 times in 2011. We began by reviewing our charge and deciding to focus on graduate medical education in Hawai‘i in light of the now available physician workforce data. Our work this year consisted of the following:

We began by reviewing the findings and recommendations of a group of national GME experts brought together by the Joshia Macy Jr. Foundation to discuss the future of GME in the U.S. Their report entitled “Ensuring an Effective Physician Workforce in America: Recommendations for an Accountable Graduate Medical Education System” was then used to guide our work efforts.

We reviewed the most recent Hawai‘i workforce data with an emphasis on identifying the most urgent specific primary care and specialty shortages. A list of the 20 specialty areas was generated and is reported here.

We reviewed a summary of the GME programs that currently exist in Hawai‘i. This review included a look at the number of graduates each year and compared the size of the program to workforce shortage information to assess GME impact.

We identified shortage areas for which there is no GME training in Hawai‘i.

We reviewed data on the impact of Hawaii’s GME programs with respect to retention of physicians in the state.

We reviewed comparative data on the trends in GME program growth in Hawai‘i and other states.

We discussed national and local challenges to understanding and securing GME financing. We then initiated a survey process designed to collect accurate information regarding current GME is funding in Hawai‘i.

We discussed establishing outcomes measures to assess the quality and overall performance of GME programs. Specific metrics were recommended.

2011 HMEC Findings - Macy Report

The term “graduate medical education” (GME) refers to the portion of physician training between medical school and practice, and it is <u>what largely determines the number, specialty mix, and skills of the physicians entering practice in the United States.</u>

The Josiah Macy Jr. Foundation funded two conferences designed to bring national experts together to discuss and develop recommendations regarding the future of

GME in the United States. The first conference was held October, 2010 and the second in May of 2011. The conclusions and recommendations that came out of these prestigious meetings were used as a guide by the HMEC in its effort to meet its charge to evaluate, plan and implement improvements to GME in Hawai'i. The relevant findings of the Macy report are summarized below.

1. GME serves the public interest in two extremely important and distinct ways. First, it is responsible for ensuring that medical school graduates are prepared to provide high quality care in one of the specialties of medicine when they complete their residency training. This contributes to the overall quality of the health care system. Second, the system is the critical determinant of the number and specialty mix of the cohort of physicians that enter practice each year, thereby contributing to the size and composition of the physician workforce that is required to meet the public's need for medical services.

2. Because GME is a public good and is significantly financed with public dollars, the GME system must be accountable to the needs of the public.

- GME must create and maintain a dynamic, ongoing exchange with the public though appropriate partnerships that engage communities in feedback, analysis and planning.

- Evaluation of GME at the institutional and national level (state level) should be transparent. Training programs, sponsoring institutions and accrediting organizations should publically report GME outcomes based on standard metrics.

3. There is a need to ensure that an adequate number of physicians are trained. Therefore planning for GME programs using the physician workforce data is critical.

4. There is a need for an independent review of the governance and financing of the GME system. This information is essential to inform strategic planning, program design and implementation/expansion.

GME in Hawai'i

The John A. Burns School of Medicine is the Sponsoring Institution for GME in Hawai'i. JABSOM works closely with a consortium of Hawai'i hospitals involved in GME through Hawai'i Residency Programs, Inc. (HRP). There are 8 major residency programs currently including surgery, internal medicine, family medicine, obstetrics and gynecology, orthopedics, pathology, pediatrics and psychiatry. Hawai'i hospitals also service as the training site for 24 interns each year who then transfer to training programs on the mainland to continued specialty training. A few fellowships (specialty training after residency) are available in psychiatry, sports medicine, cardiology, geriatrics, surgical critical care, neonatology, and high risk obstetrics. (Attachment A lists the current GME programs in Hawai'i and the number of residents that complete the program each year.)

Accreditation requirements for GME are evolving rapidly and funding to meet these new requirements is difficult to find. As a result, several programs in Hawai'i have experienced difficulty in the accreditation process. The JABSOM (in affiliation with the Hawai'i Residency Programs) institutional accreditation status was recently downgraded to a two year accreditation cycle which may substantially delay consideration of program expansions or the initiation of new programs.

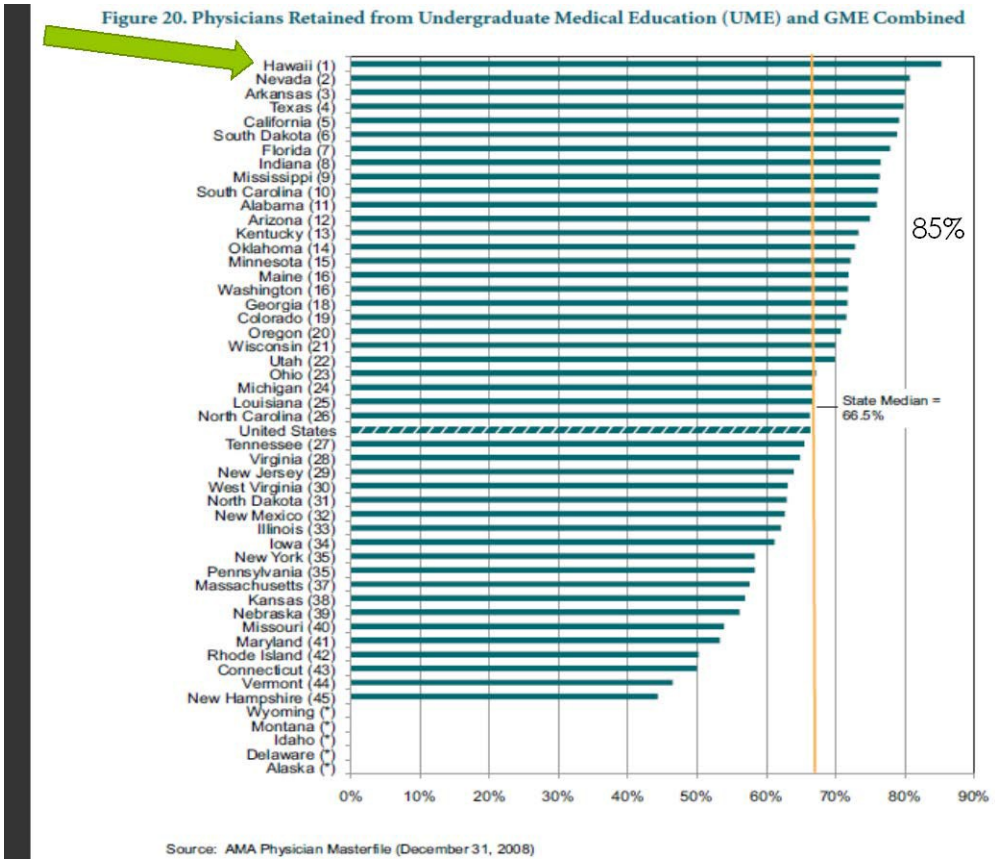
Concurrent with the HMEC work described above, UHM , JABSOM, HRP and leadership of the participating hospitals have been working to revise and update the governance and organizational structure of GME. HMEC wishes to support this effort and encourage specific objectives for the new organization in 2012.

Top 20 shortages

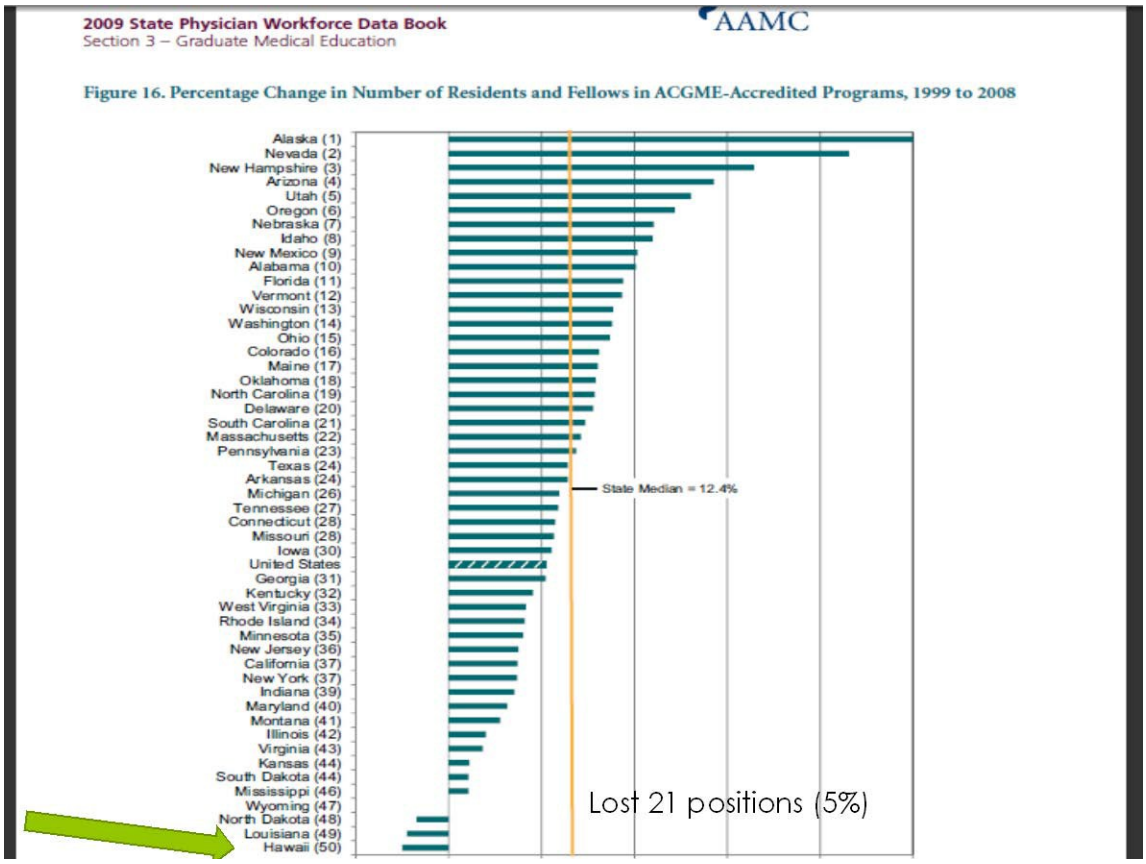
We reviewed the data on specialty shortages in Hawai'i. Because the aging of the baby boomers is such a large factor in the provider shortage projections, the specialties that will experience the greatest shortages are those that provide care for seniors. In this "Top 20" list, Hawai'i has training programs in only 5 shortage areas. Of these 5 programs, two are primary care and graduate more than 6 residents per year. The other 3 programs graduate 3 physicians or less each year. There are no programs in Hawai'i for 75% of the specialties on the list of shortages. (Attachment B includes two Top 20 lists, one ranked by % shortage and the other by # of providers)

Retention Rates

One of the most dramatic findings of the HMEC this year was that Hawai'i ranks #1 among the states for retention of physicians into practice if the student completes both medical school and residency within the state. We retain 85% of these young physicians. The opportunity to complete your training in Hawai'i increases retention in Hawai'i and decreases the likelihood of seeking training and then staying on the mainland after graduation. The graphs below represent the most recent available data from the Association of American Medical Colleges (AAMC) 2009 State Physician Workforce Data Book.



Given these results, one of the top strategies for retaining physicians should naturally be the development of GME opportunities in the state. However, when we reviewed data comparing the GME investment trends by state, Hawai‘i came in dead last. From the years 1999 to 2008, we dropped the number by 21 positions (5%). Median GME growth across the states was 12.4 percent.



While the data from the AAMC above represents trends over a 10 year period ending in 2008, we are aware of continuing negative trends in Hawai‘i GME programs due to financial or accreditation pressures. Programs in family medicine, pediatrics, surgery, psychiatry and sports medicine are among the programs at risk.

GME funding

The funding for Graduate Medical Education comes from many sources. Primary support is provided by the Centers for Medicare and Medicate Services (CMS). This support comes to hospitals that support GME programs in the form of both direct and indirect funding. The number of GME positions funded by this method has been capped for some time. The cost of GME has also be rising for several reasons including new accreditation standards while federal GME funding has remained fairly fixed. The result is that hospitals provide financial support that is above and beyond that which is reimbursed by CMS. The University of Hawai‘i at Mānoa/ JABSOM provides faculty and infrastructure to support the education of residents.

This contribution is often underappreciated as it is integrated into clinical programs that support medical student education and other academic efforts such as research.

Because the support for GME is from multiple sources, no one organization has a full picture of the total financial investment in GME in Hawai'i. This situation has led to substantial confusion among the supports of GME especially when new requirements or needs come forward. It will be very important to establish in some detail, the funding of GME in Hawai'i in order to plan for necessary improvements and growth. HMEC initiated a survey to assess current funding streams for GME and will continue this work in 2012. This is the first step in financial accountability and strategic planning for growth.

Outcomes Measures

Accountability for the results of GME programming is the final area discussed by the HMEC in 2011. Many Hawai'i programs are tracking some outcomes data but there is no standard data set. The results are not collected centrally, validated or reported outside of the program itself. The HMEC is recommending that a set of five performance measures be established and reported annually in the HMEC report to the legislature. This public accountability will help drive improvement efforts and create public confidence that investments in GME are warranted.

2011 HMEC Findings and Recommendations

There is a growing physician shortage in Hawai'i. We have a great track record (85%) for keeping physicians in Hawai'i if they attend JABSOM and complete their residency training within the state. However, the training options are shrinking and therefore reducing our ability to develop the physician work force in the state.

There are three immediate actions that the HMEC identified as essential for appropriate planning and implementation of stronger GME programming.

1. <u>Strategic Planning and Growth of GME</u> – The committee reviewed data from the physician workforce database by specialty and compared this to the current residency programs in Hawai'i. In general, shortages are mitigated in specialties where we already have programs. However we still have projected shortages in some basic areas where we have residencies in place. Shortfalls in specialists are also concerning in that Hawai'i has very few fellowship programs. One bright spot was the new cardiology fellowship as that is an example of a specialty with a projected shortage of 43%. The committee also noted that we have an abundance of PGY I positions that must then leave to complete training. Fellowships are specifically to be encouraged as they require few FTE per specialty and physicians often take jobs in the market in which they complete training.

Recommendation #1: The John A. Burns School of Medicine (JABSOM) should undertake a strategic planning process for Graduate Medical Education in FY 2012 and make specific recommendations on critical program development with a focus on fellowships, one year internships, and re-appropriation of positions to best address the anticipated shortages.

2. Financial Understanding of GME – GME is partially supported by public funds from the Centers for Medicare and Medicaid provided through participating hospitals. This financing however does not fully cover the cost of GME and the contributions of many hospitals and the University of Hawai'i. There is no clear understanding of the total cost of GME. This will be an essential piece of information in preparing for any strategic growth. The committee reviewed a survey tool to be used with hospital and UH CFOs to gather basic data on funding of GME and report this information to JABSOM for the purpose of strategic planning.

Recommendation #2– The HMEC will direct JABSOM to collect information regarding the funding of GME from all participants and report this estimate in the annual HMEC report. Furthermore, this information will be used to estimate any strategic growth costs prior to the establishment of growth plans.

3. Measuring the Performance of GME – The ACGME requires that programs collect data in order to assess and improve performance over time. This is not currently being done in any systematic, centralized fashion.

Recommendation #3 – The HMEC will direct that JABSOM develop standard performance metrics and monitor over time the results. These results will be included in the annual HMEC report to the UH Board of Regents and the State of Hawai'i.

Suggested basic metrics include: recruitment (match results and quality of applicants), retention of residents to completion of residency, resident satisfaction with training, pass rate on specialty boards, cost per resident, and retention into Hawai'i practice. Others will be developed by JABSOM over time. This will be accomplished by centralizing quality tracking at JABSOM for the metrics above within the Physician Workforce assessment program.

HMEC 2012

The Hawaii Medical Education Council would like to recognize the outstanding work of 4 members who have served as HMEC members since its creation 8 years ago. Mary Worrall, Susan Murry, Christi Keliipio and Art Ushijima have faithfully guided the work of this council and made considerable contributions to the progress made. Their terms ended on October 28th, 2011 and we will need to find replacements for these outstanding contributors in 2012.

The HMEC would also like to recognize the administrative leadership provided by Dr. William Haning who over the course of the past 8 years orchestrated the work of the HMEC from the JABSOM Dean's office. His hard work and commitment are greatly appreciated.

Much of 2012 is anticipated to be spent on following up on the recommendations above and encouraging the strong work being undertaken by the UHM Chancellor, the Dean of JABSOM, HRP and hospital leadership in their efforts to update the governance and organizational structure of GME in Hawai'i.

Finally, while the emphasis in 2011 was GME, the HMEC discussed at some length the need to leverage the entire health care workforce to meet the challenges presented by a growing senior population. Expanding physician training opportunities is only part of the solution. HMEC has been following closely the hard work of the State of Hawai'i Workforce Development Council (WDC). Their recent report outlines shortages, barriers and potential solutions to workforce problems in several medically related fields. The need to encourage interdisciplinary training and responsible changes in scope and systems design will be a necessary part of our 2012 deliberations and long term strategic planning.

Respectfully submitted,

Roy Magnusson, MD
Associate Dean for Clinical Affairs
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University of Hawai'i at Mānoa

Attachment A – Current GME programs in Hawai'i with number of residents completing the program each year.

Appendix B – Top 20 Lists of Provider Shortages in Hawai'i.

ATTACHMENT A

Program	Average number graduates each year	NOTES
CORE PROGRAMS		
Surgery	3	
Internal Medicine	16	
Family Medicine	6	
OB/Gyn	6	
Orthopedics	2	
Pathology	2	
Pediatrics	8	
Psychiatry	4	
ONE YEAR PROGRAMS		
Prelim IM	6	
Prelim OB/Gyn	1	
Prelim Surgery	8	
Transitional Year	9	
FELLOWSHIPS		
Addiction Psychiatry	2	
Cardiovascular Disease	2	NEW program, no graduates until 2013
Child & Adolescent Psych	2	
Geriatric Psychiatry	1	
Geriatrics	6	1st yr accredited, 2nd grad yr is non-accredited
Maternal-Fetal Medicine	1	NON-ACGME Accredited, NEW, first grad in 2012
Sports Medicine	1	On hold
Surgical Critical Care	2	
Neonatal-Perinatal	2	Tripler employees

Attachment B

Table of greatest demand ranked by % of shortage for those with a deficit of over 20%

Specialty	Supply	Demand	Shortage	% short
Radiation Oncology	10.4	26	15.6	60%
Neurological Surgery	10.4	24	13.6	57%
Pediatric Cardiology	4.0	8.0	4.0	50%
Cardiology	61.4	107	45.6	43%
General Surgery	73.1	125	51.9	42%
Infectious Disease	17.2	29	11.8	41%
Neurology	32.9	53.8	20.1	39%
Gastroenterology	47.1	76	28.9	38%
Endocrinology	15.6	25	9.4	38%
Pulmonary	28.8	45.6	16.8	37%
Thoracic Surgery	18	27.6	9.6	35%
Anesthesiology	147.3	226	78.7	35%
Medicine/Med Peds	388.7	575.7	187	33%
Diagnostic Radiology	130.9	186	55.1	30%
Urology	35	49.6	14.6	29%
Rheumatology	14.8	14	4	29%
Neonatology	15.8	22	6.2	28%
Otolaryngology	31.6	44	12.4	28%
Oncology/Hematology	31.3	43	11.7	27%
Family Med/General Pract	316.5	404.4	87.9	22%

Table of demand ranked by absolute number of providers needed for the specialties above:

Specialty	Supply	Demand	Shortage	% short	Trained	Comment
Medicine/Med Peds	388.7	575.7	187	33%	16	
Family Med/General Practice	316.5	404.4	87.9	22%	6	
Anesthesiology	147.3	226	78.7	35%	0	*
Diagnostic Radiology	130.9	186	55.1	30%	0	*
General Surgery	73.1	125	51.9	42%	3	
Cardiology	61.4	107	45.6	43%	2	
Gastroenterology	47.1	76	28.9	38%	0	
Neurology	32.9	53.8	20.1	39%	0	
Pulmonary	28.8	45.6	16.8	37%	0	
Radiation Oncology	10.4	26	15.6	60%	0	
Urology	35	49.6	14.6	29%	0	
Neurological Surgery	10.4	24	13.6	57%	0	
Otolaryngology	31.6	44	12.4	28%	0	
Infectious Disease	17.2	29	11.8	41%	0	
Oncology/Hematology	31.3	43	11.7	27%	0	
Thoracic Surgery	18	27.6	9.6	35%	0	
Endocrinology	15.6	25	9.4	38%	0	
Neonatology	15.8	22	6.2	28%	1	
Rheumatology	14.8	14	4	29%	0	
Pediatric Cardiology	4.0	8.0	4.0	50%	0	